

REMARKS

Claims 1 and 3-13 remain in the application.

CLAIM REJECTIONS UNDER 35 USC §102

The Office Action rejected claims 1 and 3-13 under 35 USC 102 as anticipated by U.S. Patent No. 6,061,679 issued to Bournas (hereafter, "Bournas"). Anticipation requires that each and every element of the claimed invention be disclosed in a single reference of prior art. *In re Paulsen*, 30 F.3d 1475 (Fed. Cir. 1994).

As to claim 1, Bournas does not teach or suggest the step of periodically traversing selected constant-sized subgraphs, as amended. The Examiner "asserts that searching the data structure [...] to locate where to place the new key mask constitutes detecting structural changes to the subgraphs." Bournas provides an efficient way to form a data structure, and to efficiently index (search) for items within it. This is analogous to arranging a set of numbers into a binary tree (which allows for usually-quick search); even more apt is the analogy with a radix tree, which provides for a special way to form the tree, and a special way to "key" the items within.

In this sense, to detect structural changes, one must periodically perform a lookup --- to see if the desired item is there or not. A lookup involves, in the worst case, a search in the data structure for the desired key (e.g. a logarithmic-time search on average for a binary tree). Claim 1 defines how to do this in constant time; i.e., claim 1 does not perform a full lookup to detect changes. The method of claim 1 requires a scan of only the constant-sized

subgraph of the full graph that is necessary to detect the change of interest.

Even more distinguishing is that Bournas requires that "each addressable element [... include] its own unique address." Therefore, Bournas cannot detect changes of patterns; e.g., he cannot discover when more pairs of (A points to B) in a graph show up. This is the kind of "structural changes to subgraphs" that our claims can cover; e.g., at time 1, there are five B's pointed to by an A, while at time 2 there are 10 B's pointed to by an A.

Claims 3-11 are dependent on claim 1 and are not anticipated for the foregoing reasons.

Claims 12 and 13 are, respectively, program product manufacture and machine counterparts of claim 1 and hence the patent claims and their dependent claims are also not anticipated for the above reasons.

For the foregoing reasons, Applicant respectfully allowance of the pending claims.

Respectfully submitted,



Michael J. Buchenhorner

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Michael Buchenhorner, P.A.
michael@buchenhorner.com